

REMARKS

Claims 1 and 2 were rejected under 35 U.S.C. §102(b) as being anticipated by Hendry, U.S. Patent No. 4,201,742.

Claim 1 was rejected under 35 U.S.C. §102(b) as being anticipated by either Hatakeyama et al., U.S. Patent No. 4,820,149, or Atake, U.S. Patent No. 5,851,558.

Claim 4 was rejected under 35 U.S.C. §102(b) as being anticipated by Hultgren, U.S. Patent No. 2,994,921. Claim 4 has been made dependent on claim 3, which along with claim 5. has been found to be allowable.

Claim 6 was objected to as being dependent upon a rejected base claim, but was indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 6 no longer is dependent upon a rejected base claim since it is dependent on claim 4, which is now dependent on claim 3, an allowable claim, as previously stated.

With regard to claim 1, the features of this application include a bottoming portion for producing a bored portion and a vacant space in the bottoming portion for reducing a contact area, clearly mentioned in claim 1.

The bottoming portion for producing a bored portion completely contacts a cavity surface opposite to the bottoming portion, and molding is done in that contact condition. Therefore, damage, such as a crack, may occur in the bottoming portion, the cavity surface contacting it, or a molded product, by effect of thermal shrinkage and/or thermal expansion caused by change of temperature, heat strain caused by a temperature difference between the bottoming portion and the cavity surface contacting it, or increase of contact pressure of the bottoming portion.

In claim 1 of this application, the vacant space is formed in the bottoming portion so that occurrence of damage, such as a crack, is prevented in the bottoming portion, the cavity surface contacting it, and a molded product, by reducing the effect of thermal shrinkage and/or thermal expansion, heat strain, and contact pressure of the bottoming portion, when a molded product having a bored portion is produced.

In the references cited in support of the rejection of claim 1, there is no bottoming portion for producing a bored portion. Naturally, damage, such as a crack, which is caused by molding in the situation where the bottoming portion completely contacts the cavity surface, never occurs in the bottoming portion, in the cavity surface contacting it, or in a molded product. Thus, the problems to be solved in this application never occur in the construction of the three references which do not have a bottoming portion.

Chamber 32 in Hatakeyama et al. stores resin pressed out from cavity 24, when block 28 enters into cavity 24. On the other hand, in this application, resin never enters into the vacant space. The object and operation of chamber 32 of Hatakeyama et al. is very different from the object and operation of the vacant space of this application. Chamber 32 of Hatakeyama et al. is not formed in a bottoming portion for producing a bored portion. In addition, the block 28 produces a thin portion 46, not a bottoming portion for producing a bored portion. The block 28 does not contact the cavity surface opposite to the block 28, and does not have a vacant space.

Atake discloses an invention making a product 1 with a decorative sheet S. Sheet holding members 32 fixedly hold the ends of the sheet S, and the sheet S is absorbed and fixed through the suction holes 36. The suction holes 36 are covered by the sheet S. The sheet holding members 32 are positioned outside a cavity 26. A land 27 of Atake forms gates 16 having a reversing passage to mold runners. The land 27 is different from the bottoming portion of this

application in which resin never interposes between the bottoming portion and the cavity surface. Further, the land 27 does not have a vacant space for reducing the contact area.

In Hendry, there is no bottoming portion for producing a bored portion at all, and there is no vacant space for reducing contact area of the bottoming portion.

Claim 2 is dependent on claim 1, and claims a gas vent for venting gas in the vacant space in the bottoming portion, in addition to the bottoming portion for producing a bored portion and the vacant space in the bottoming portion for reducing contact area.

If too much gas exists in the vacant space, the bottoming portion cannot contact the cavity surface completely by the pressure of the gas so that it is impossible to make the desired bored portion. On the other hand, in claim 2, gas is vented from the vacant space in order to make the desired bored portion by causing the bottoming portion to completely contact the cavity surface. Accordingly, the gas vent must communicate with the vacant space in the bottoming portion.

As mentioned above, suction holes 36 of Atake only operate to absorb and hold the sheet S. Vent holes 27, 28 of Hendry are for venting gas in the cavity 18 by using a complex mechanism shown in Fig. 4, but this mechanism is different from the gas vent of this application which communicates with the vacant space in the bottoming portion. Of course, these holes 27, 28, 36 of the references cannot achieve the technical spirit of claim 2 of this application to vent gas from the vacant space in order to make the desired bored portion by causing the bottoming portion to completely contact the cavity surface.

CLOSING

An earnest effort has been made to be fully responsive to the Examiner's objections. In view of the above amendments and remarks, it is believed that independent claims 1 and 3 are in condition for allowance, as well as those claims dependent therefrom. Passage of this case to allowance is earnestly solicited.

However, if for any reason the Examiner should consider this application not to be in condition for allowance, he is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper, not fully covered by an enclosed check, may be charged on Deposit Account 50-1290.

Respectfully submitted,



Michael I. Markowitz
Reg. No. 30,659

KATTEN MUCHIN ZAVIS ROSENMAN
575 MADISON AVENUE
NEW YORK, NEW YORK 10022
(212) 940-8687
DOCKET NO.: WAKA 19.305
MIM:lh
CUSTOMER NO.: 026304